

THE CLAIMS:

The pending claims are presented for the Examiner's convenience.

1.-35. (Cancelled).

36. (Previously Presented) A method, comprising:

establishing a first transmission path for user data related to a call, said first transmission path comprising a first access network, a first core network communicating with said first access network, a second core network communicating with said first core network, and a second access network communicating with said second core network; and

switching from said first transmission path to a second transmission path for said user data, said second transmission path comprising a direct connection between said first access network and said second access network,

wherein, before said establishing of said first transmission path for said user data, establishing a third transmission path for control data related to said call is performed,

wherein, before said switching from said first transmission path to said second transmission path for said user data, a handshake between at least one first access-network element involved in said first transmission path in said first access network and at least one second access-network element involved in said first transmission path in said second access network is performed, said handshake comprising providing from the

at least one first access-network element to the at least one second access-network element first control information indicating that said direct transmission of user data between said first and second access networks is possible.

37. (Previously Presented) The method according to claim 36, wherein said third transmission path comprises the same networks as said first transmission path for user data.

38. (Previously Presented) The method according to claim 36, wherein said third transmission path remains unchanged before and after said switching from said first transmission path to said second transmission path.

39. (Previously Presented) The method according to claim 36, wherein said first, second, and third transmission paths involve a first access-network element in said first access network, and a second access-network element in said second access-network.

40. (Previously Presented) The method according to claim 36, wherein said first control information comprises a first information element indicating that in relation to said call said first or second access-network element has a role of an originating or a terminating access-network element, respectively.

41. (Previously Presented) The method according to claim 36, wherein said providing of said first control information is performed during said establishing said third transmission path for control data related to said call.

42. (Previously Presented) The method according to claim 36, wherein said providing of said first control information comprises transferring second control information from said first access-network element to said second access-network element, or vice versa, said second control information containing a transport address of said first or second access-network element, respectively.

43. (Previously Presented) The method according to claim 42, further comprising:

before said switching from said first transmission path to said second transmission path for said user data, responding to said second control information by transferring third control information from the access-network element receiving said second control information to the access-network sending said second control information, said third control information containing a transport address of the respective access-network element having received said second control information.

44. (Previously Presented) The method according to claim 36, further comprising:

after said switching from said first transmission path to said second transmission path for said user data, transferring fourth control information from said first access-network element to said first core-network element or from said second access-network element to said second core-network element, said fourth control information indicating that said switching from said first transmission path to said second transmission path for said user data related to said call has been performed successfully.

45. (Previously Presented) The method according to claim 44, further comprising:

after said transferring of said fourth control information, saving said fourth control information for later use by said first or second core-network element, respectively.

46. (Previously Presented) The method according to claim 44, further comprising:

after said transferring of said fourth control information, forwarding said fourth control information from said first or second core-network element to further core-network elements in the first and/or second core-network, respectively, that are involved in said first transmission path.

47. (Previously Presented) The method according to claim 36, further comprising:

after said switching from said first transmission path to said second transmission path for said user data related to said call, switching back to said first transmission path for user data is performed under predetermined conditions.

48. (Previously Presented) The method according to claim 47, further comprising:

before said switching back to said first transmission path, transferring fifth control information from said first core-network element or said second core-network element to said first access-network element or said second access-network element, respectively, said fifth control information indicating a request to switch back the transmission path for user data to said first transmission path.

49. (Previously Presented) The method according to claim 47, further comprising:

before said switching back from said second transmission path to said first transmission path for said user data, performing a handshake between said first and second access-network elements.

50. (Previously Presented) The method according to claim 47, further comprising:

before said switching back to said first transmission path, transferring sixth control information from the access-network element receiving said fifth control information to the other access-network element involved in said second transmission path, said sixth control information indicating a request to switch back the transmission path of user data to said first transmission path.

51. (Previously Presented) The method according to claim 50, further comprising:

before said switching back to said first transmission path, transferring seventh control information from the access-network element receiving said sixth control information to the access-network element sending said sixth control information, said seventh control information indicating acknowledging the coming switch back of the transmission path of user data to said first transmission path.

52. (Previously Presented) The method according to claim 47, further comprising:

after said switching back to said first transmission path, transferring eighth control information from said first and/or second access-network element to said first or second core network element, said eighth control information indicating that said switching back to said first transmission path has been performed successfully.

53. (Previously Presented) The method according to claim 36, further comprising:

before said switching from said first transmission path to said second transmission path for said user data, transferring ninth control information from said first and/or second access-network elements to said first or second core-network elements, respectively, said ninth control information indicating that switching to said second transmission path is intended.

54. (Previously Presented) The method according to claim 53, further comprising:

before said switching from said first transmission path to said second transmission path for said user data, transferring tenth control information from said first or second core-network elements to said first or second access-network elements, respectively, said tenth control information indicating authorization to switch to said second transmission path.

55. (Previously Presented) The method according to claim 36, wherein said call is of a circuit-switched connection type.

56. (Previously Presented) The method according to claim 55, wherein said establishing of said third transmission path for control data comprises negotiating a mechanism of coding and decoding of user data between the networks.

57. (Previously Presented) The method according to claim 55, wherein said transferring of said first or said second control information from said first access-network element to said second access-network element is performed using said third transmission path.

58. (Previously Presented) The method according to claim 36, wherein said call is of a packet-switched connection type.

59. (Previously Presented) The method according to claim 58, wherein said transferring of said first control information from said first access-network element to said second access-network element is performed using said first transmission path for user data.

60. (Previously Presented) The method according to claim 59, wherein said first control information is contained in a first data packet transferred between said first and second access-network elements after said establishing said first transmission path.

61. (Previously Presented) The method according to claim 59, wherein said first or second control information is contained in at least one extension header of said first data packet, and said second control information comprises said transport address of the access-network element sending said first data packet.

62. (Previously Presented) The method according to claim 58, wherein said transferring of said second control information from said first access-network element to said second access-network element comprises forwarding said second control information from said first core-network element to said second core-network element in a second data packet.

63. (Previously Presented) The method according to claim 58, wherein said forwarding of said control information from said first core-network element to said second core-network element comprises copying said extension header to said second data packet.

64. (Previously Presented) The method according to claim 58, wherein said responding to said second control information comprises transferring said third control information in a third data packet from the access-network element receiving said second control information to the access-network element sending said second control information.

65. (Previously Presented) The method according to claim 64, wherein said third control information is contained in at least one extension header of said first data packet, and said third control information comprises said transport address of the access-network element receiving said first data packet.

66. (Previously Presented) An apparatus , comprising:

at least one first interface configured to exchange control information and user data with a transceiver station;

at least one second interface configured to exchange control information and user data with a first core-network;

a first call control unit connected to said first interface, and configured to establish, maintain and release across said first interface in relation to a call a first control-channel section for transmission of control information and a first user-channel section for transmission of user data, said first control- and user-channel sections having as endpoints said apparatus and said transceiver station; and

a second call control unit connected to said first call control unit and connected to said second interface, configured to establish, maintain and release across said second interface in relation to said call a second control-channel section for transmission of control information and a second user-channel section for transmission of user data, said

second control- and user-channel sections having as endpoints said apparatus and a predetermined core-network element in said first core-network,

wherein said first call control unit is additionally configured to establish, maintain and release across said first interface a third user channel-section for user data related to said call having as endpoints said apparatus and a second network element in said second access network, respectively, and

wherein said apparatus is configured to perform a handshake directly between said apparatus and said second network element after establishing said second control channel section and before establishing said third user channel section, said handshake comprising providing from the first network element to the second network element first control information indicating that said direct transmission of user data between said first and second access networks is possible.

67. (Previously Presented) The apparatus according to claim 66, wherein the second call control unit is configured to release said second user-channel section after said third user channel section is established.

68. (Previously Presented) The apparatus according to claim 66, wherein the first call control unit is configured to assess whether an ongoing call is eligible for establishing said third user channel section.

69. (Previously Presented) The apparatus according to claim 66, wherein said first call control unit and the second call control unit are configured to facilitate

establishing a first transmission path for said user data, said first transmission path comprising a first access network, a first core network communicating with said first access network, a second core network communicating with said first core network, and a second access network communicating with said second core network;

switching from said first transmission path to a second transmission path for said user data, said second transmission path comprising a direct connection between said first access network and said second access network, wherein, before said establishing of said first transmission path for said user data, establishing a third transmission path for control data related to said call is performed, and

wherein, before said switching from said first transmission path to said second transmission path for said user data, a handshake between at least one first access-network element involved in said first transmission path in said first access network and at least one second access-network element involved in said first transmission path in said second access network is performed, said handshake comprising providing from the at least one first access-network element to the at least one second access-network element first control information indicating that said direct transmission of user data between said first and second access networks is possible.

70. (Canceled)

71. (Previously Presented) A computer program embodied on a computer-readable medium, the computer program configured to control a processor to perform operations comprising:

establishing a first transmission path for user data related to a call, said first transmission path comprising a first access network, a first core network communicating with said first access network, a second core network communicating with said first core network, and a second access network communicating with said second core network; and

switching from said first transmission path to a second transmission path for said user data, said second transmission path comprising a direct connection between said first access network and said second access network,

wherein, before said establishing of said first transmission path for said user data, establishing a third transmission path for control data related to said call is performed,

wherein, before said switching from said first transmission path to said second transmission path for said user data, a handshake between at least one first access-network element involved in said first transmission path in said first access network and at least one second access-network element involved in said first transmission path in said second access network is performed, said handshake comprising providing from the at least one first access-network element to the at least one second access-network

element first control information indicating that said direct transmission of user data between said first and second access networks is possible.

72. (Previously Presented) An apparatus, comprising:

establishing means for establishing a first transmission path for user data related to a call, said first transmission path comprising a first access network, a first core network communicating with said first access network, a second core network communicating with said first core network, and a second access network communicating with said second core network; and

switching means for switching from said first transmission path to a second transmission path for said user data, said second transmission path comprising a direct connection between said first access network and said second access network,

wherein, before said establishing of said first transmission path for said user data, establishing a third transmission path for control data related to said call is performed,

wherein, before said switching from said first transmission path to said second transmission path for said user data, a handshake between at least one first access-network element involved in said first transmission path in said first access network and at least one second access-network element involved in said first transmission path in said second access network is performed, said handshake comprising providing from the at least one first access-network element to the at least one second access-network

element first control information indicating that said direct transmission of user data between said first and second access networks is possible.